

## Appendix IV

P03170US/WARF-0204

SEQUENCE LISTING

5 AATTACTAGATTTAAAAAATACATTTTGGATCTTGAAAAGATATATTGTTTGGATTGGATAAATTA  
TGAGAAAAAATTAATAGAGGTGGATTTTATTTTCATTCATAAGAAAATGACATATAATAAGAAITTTAAA  
AAAAAAAAGAGAGAGGTTGTAGTTGCAAGGGTATAAGTGTGCAAGTGGTGGATGGAAGGGTAATTT  
TAGACCAAAAAGATGAGTAGAAGGGTATTTTAGATCAAGATGGATGGAGGGTATTTTAGATCTTTTC  
10 ATGTAATTCAGGGGATTTTGGCCCGATTTATTTGATCTCCCTCTCTTTTGGTCTGGTTGATTGA  
CAGGCTCTGTAATGAGTGTGTTGTTGTAATCAGTATTAATTAATCTCTCAAGGTAATATATATATCCAAACA  
AATTTGTGTTACCAATTAATATATTTCTAAAATCTCTGAAGGTAGTTAATAATCTTTTAGTGT  
GTATCATGTTTTTAATATAAAATATTAATTTAGATGAAATTAATTTCTAGTTAAATTGGTCAAGGT  
15 GTAAGAATTTCAAGTGAAGAGTTTTAATAATTTCACTTTTATGCTATATATTTTAAAGTTGAACGAC  
TTTTTAATAAAAAAGAATAATAAAATATATGATAAATTTTATAATACAAATGGCCTTTATATGATGAAAA  
AAAGAGAAAGAAATTAGATGACAAATGTCCAAAATAATCTTAAAGAAATATGATTATATATATAATAA  
ATTAATTTTAAATTTGATGAAAAATAGAGAGAAGAAGAAGATGATGAAGTGAATATATGTTGGTGG  
GTCCATGTGACATAATAAAAAACAATTTCTTAAATAATCTTTTCACTAATGATAAAAGAAAATATAT  
ATATATATATATATTTCTTTTACAAATTTGTAATAGAGAAAAGGAAATGGGCTAGCAATTACAGGTA  
15 GGAATCAAACTTTATCAACAAGTTGAGAGTTCAAGTAATCACTTTATCATATCCGAAACATTCCTTCC  
GCTTTGAGTCTTTTCTTTATGGATCCCG

**SEQ ID NO:5:** Gene 2 protein sequence (from the resistant homolog)

20 MAEAFIQVLLDNLTSLFKGELVLLFGQDEFQRLSSMFSTIQAVLEDAQEKQINNKPLENWLQKLNAAATY  
EVDLIDLEYKTKATRFSGSEYGRYHPKVI PFRHKVGRMDQVMKKLKAIAEERKNPHLHEKIVERQAVRR  
ETGSLTEPQVYGRDKERDEIVKILINNVSDAQHLSVLPIGLMGSIGKTTLAGQMVFNQQRVTFHFHSKI  
ICVSEDFDEKRLIKAIVESIEGRPLLGEMDLAPLQKKLQELLNGKRYLLVLDVWNEQQKWANLRAVLK  
25 VGASGASVLTTRLEKVGSI MGTLQPYELSNLSQEDCWLLFMQRAFGHQEEINENLVAIGKEIVKSGGV  
PLAAKTLGGILCFKREERAWEHVRDSPINLPPQDESSILPALRLSYHQLPLDLKQCFAYCAVEPKDAKMK  
KEKLISLWMAHGFLSKGNMELEBVGDEVVKELYLRSFFQIEIEVKDGKTYFKMHDLIHDLATSLFSANTS  
SSNIREINKHSYTHMMSIGFAEVVFFYTLPPLEKFI SLRVNLGDSSTFNKLPSISIGDILVHLRYLNLYGSG  
MRSLPKQLCKLQNLQTLDLQYCTKLCCLPRETSKLGSLRNLLLDGSQSLTCMPPRIGSLTCLKTLGQFVV  
30 GRKKGYQLGELGNLNLGYSIKISHLERVRNMDAKEANLSAKGNLHSLMSWNNPSPHIIYBSEKVKLEA  
LKPHNSLSLKIYGRGIHLPEWMNHSVLKNIIVSILISNFRNCSCLPPFGDLPCLESLELHWGSADVEYV  
EEVDIDVHSGFPRIREFSLRLKLDIWDGSLKGLLKEEGEEQFVLEEMI IHECPFLTLSNIRALTSLR  
ICYNKVATSFPEEMFKNLANLKYLTISRCHNLKELFTSLASLNALKSLKIQLCCALESLEEGLEGLSSL  
TELFVEHCNMLKCLPEGLQHLTTLTSLKIRGCPQLIKRCEKIGEDWHKISHIPNVNIYI

35 **SEQ ID NO:6:** Nucleic acid sequence of disease resistant gene, gene 3 (from the resistant homolog)

40 ATGGCTGAAGCTTCTCTCAAGTCTCTGCTAGATAATCTCACTTTTTCATCCAAGGGGAACITGGATTGG  
TTTTTGGTTTCGAGAAGGAGTTTAAAAAATCTTCAAGTATGTTTTCAATGATCCAAGCTGTGCTAGAAGA  
TGCTCAAGAGAAGCAACTGAAGTACAAGGCAATAAAGAACTGGTTACAGAACTCAATGTTGCTGCATAT  
GAAGTTGATGACATCTTGGATCACTGTAAAATCTGAGGCAGCAAGATTCAAGCAGGCTCTATTGGGGCGTT  
ATCATCCACGGACCATCACTTTCTGTTTACAAGGTGGGAAAAAGAATGAAAGAAATGATGGAAAACTAGA  
TGCAATTCAGAGGAACGAGGAATTTTCAATTTAGATGAAAGGATTTATAGAGAGACAAGCTGCTAGACGG  
CAACACAGTTTGTGTTTAACTGAGCCAAAGTTTATGGAAGGGAAAAAGAGGAGGATGAGATAGTGA  
45 TCTTGATAAACCAATGTTAGTTATTCGGAAGAGTTCCAGTACTCCCAATACTGGTATGGGGGACTAGG  
AAAGACGACTCTAGCCCAATCGTCTTCAATGATCAAGAAATTAAGTATTTCAATCTAAGATATGG  
GTTTGGTCTCAGATGATTTGATGAGAAGAGTTGATTAGGCAATTTGATAGTCTATTGAAGGAAAGT  
CACTGGGTGACATGGACTTGGCTCCCTCCAGAAAAAGCTTCAGGAGTTGTTGAATGGAAAAAGATCACT  
TCTTGTGTTTGGATGATGTTTGAATGAAGATCAAGAAAGTGGGATAATCTTAGAGCAGTATTGAAGATT  
50 GGAGCTAGTGGTGCTTCAATTTCAATTAATCTCTCGTCTTGAAAAAATTTGATCAATTTAGGGAACITTC  
AACTATATCAGTTATCAAATTTGCTCAAGAGAGTTGTTGGTTGTTGTTCAAGCAACGTCATTTTGCCA  
CCAAACCGAAACAAGTCTAACTTATGGAATCGGAAAGGAGATTGTAAGAAATCTGGGGCTGTGCT  
CTAGCAGCCAAACTCTTGGAGGCTTTTACGCTTCAAGAGGGAAGAAAGTGAATGGGAACATGTGAGAG  
ATAGTGTGTTGGAATTTACCTCAAGATGAAATTTCTGTTTTCCTGCTTGGAGCTGAGTTATCATCA  
55 TCTTCCACTTGATTGAGACAATGTTTTCATATTCGCGAGTATCCCAAGGACACCAAAATAGAAAAG  
GAATATCTCATCGCTCTCTGGATGGCACAGTTTCTTTTATCAAAAGGAAACATGGAGCTAGAGGATG